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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/481,988	01/11/2000	PAUL J. BRUINSMA	1941-70	6422

20575 7590 12/14/2001

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EXAMINER

MARCANTONI, PAUL D

ART UNIT	PAPER NUMBER
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1755

18

DATE MAILED: 12/14/2001

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES DEPARTMENT OF COMMERCE
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12/14/01

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
481,988	1/11/00	BRUNISMA et al.	1941-D

EXAMINER	
Paul Marcantoni	
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Below is a communication from the EXAMINER in charge of this application

COMMISSIONER OF PATENTS AND TRADEMARKS

ADVISORY ACTION

☐ THE PERIOD FOR RESPONSE:

- ☐ is extended to run _____ or continues to run _____ from the date of the final rejection
- ☐ expires three months from the date of the final rejection or as of the mailing date of this Advisory Action, whichever is later. In no event however, will the statutory period for the response expire later than six months from the date of the final rejection.

Any extension of time must be obtained by filing a petition under 37 CFR 1.136(a), the proposed response and the appropriate fee. The date on which the response, the petition, and the fee have been filed is the date of the response and also the date for the purposes of determining the period of extension and the corresponding amount of the fee. Any extension fee pursuant to 37 CFR 1.17 will be calculated from the date of the originally set shortened statutory period for response or as set forth in b) above.

- ☐ Appellant's Brief is due in accordance with 37 CFR 1.192(a).
- ☐ Applicant's response to the final rejection, filed _____ has been considered with the following effect, but it is not deemed to place the application in condition for allowance:
- ☐ The proposed amendments to the claim and/or specification will not be entered and the final rejection stands because:
- a. ☐ There is no convincing showing under 37 CFR 1.116(b) why the proposed amendment is necessary and was not earlier presented.
 - b. ☐ They raise new issues that would require further consideration and/or search. (See Note).
 - c. ☐ They raise the issue of new matter. (See Note).
 - d. ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal.
 - e. ☐ They present additional claims without cancelling a corresponding number of finally rejected claims.

NOTE: _____

- ☐ Newly proposed or amended claims _____ would be allowed if submitted in a separately filed amendment cancelling the non-allowable claims.

- ☒ Upon the filing an appeal, the proposed amendment ☒ will be entered ☐ will not be entered and the status of the claims will be as follows:

Claims allowed: 1-27, 40, 41, 58-60, 69-71, 78-88, 90-95, 98, & 109-115

Claims objected to: _____

Claims rejected: 116-121

However;

- ☐ Applicant's response has overcome the following rejection(s): _____

- ☒ The affidavit, exhibit or request for reconsideration has been considered but does not overcome the rejection because for the reason set forth in the final rejection & attached sheets.

- ☐ The affidavit or exhibit will not be considered because applicant has not shown good and sufficient reasons why it was not earlier presented.

☐ The proposed drawing correction ☐ has ☐ has not been approved by the examiner.

☐ Other

PAUL MARCANTONI
SENIOR EXAMINER

Applicants' response of 12/10/01 is acknowledged. Claims 116-121 are the sole remaining rejected claims. All other claims are now allowed upon amendment of claims.

Claim 116 contains new matter. The applicants omit the use of an acid (catalyst) in claim 116 which would appear to be required for their invention. It would appear that HCl is an acid catalyst and it is used in all examples so it would appear to be a critical component in their method. This omission of an acid catalyst in claim 116 would appear to be new matter absent a showing from the original disclosure that its usage is not mandatory.

Claim 117 also omits the use of an acid catalyst which would appear to be a critical component in their claimed method and thus its omission is new matter.

Claim 118 contains new matter. The term "surfactant" alone in claim 118 is also new matter since applicants have support for ammonium cationic surfactants or an *alkyl triethylammonium* chloride or bromide surfactants with different chain lengths.

Claim 118 also omits the use of an acid catalyst which would appear to be a critical component in their claimed method and thus its omission is new matter.

Claim 119 contains new matter. The term "a surfactant" is new matter. Applicants only have support in their original disclosure for ammonium cationic surfactants or an *alkyl triethylammonium* chloride or bromide surfactants with different chain lengths.

Claim 119 also omits the use of an acid catalyst which would appear to be a critical component in their claimed method and thus its omission is new matter.

Claims 120 and 121 contain new matter because both claims would appear to omit the use of both a surfactant (specifically, ammonium cationic surfactants or an *alkyl triethylammonium* chloride or bromide surfactants with different chain lengths) and an acid catalyst which are both critical components of their inventive process. Omission of these components would appear to be new matter.

Note these points regarding new matter are representative of all newly submitted claims 116-121.

Response:

The following is the examiner's response from the final rejection:

The applicants indicate they have support for the use of any surfactant or all known surfactants at the time of applicants' invention. The examiner acknowledges applicants' insertion of specific surfactants such as ammonium cationic surfactants in existing claims which are supported by their original disclosure. These claims have been allowed unless they contained another component that was found to be new matter. ***(However, claims 118 and 119 are still rejected because applicants do not have support for any surfactant except those from their original disclosure).***

Applicants argue that their summary does not mention a cationic surfactant and any reference to a catalyst is as a product of the process, not part of the solution. In rebuttal, the applicants did not originally disclosure does not support only "a surfactant" but is limited to ammonium cationic surfactant. Applicants are entitled to broaden their claims in a re-issue application as long as the re-issue application is filed within 2 years of the patent date. That they have done. However, applicants are not entitled to support for subject matter which is not supported by their original disclosure in either a regular application or a re-issue application. Unsupported subject matter is new matter in both applications.

Applicants original specification contains no statement indicating that any surfactant can be used for their invention. It would appear that in all cases in their examples only ammonium cationic surfactants were used to obtain their desired results. Further, applicants only mention the specific type of bromide or chloride surfactants mentioned in their specification body as useful to the instant invention. It would appear be improper to necessarily infer that any surfactant can be used satisfactorily to obtain the applicants desired results. It is quite possible that the use of an different chemical surfactant might react with some of their starting components and have a detrimental effect on their desired result.

Further, the applicants are referred to their own examples regarding the use of a catalyst. They have repeated statements that chemistry (ie it is assumed catalyst and surfactant) is not part of the solution. The examiner disagrees as both surfactants and

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catalysts (acid) are used in all examples. They would thus appear to be part of the solution. HCl (acid catalyst) would appear to be used in every example and thus would appear to be a critical component of their invention. It was also a critical component in their original patent (See Bruinsma patent claim 1). It is unclear why it is now not a critical component or that it may be omitted from their process. It is believed to be "part of the solution" as applicants state since it is used in what would appear to be all examples.

Applicants have support for aqueous solvent (which was originally claimed) and this can refer to water alone as the solvent. Further, applicants have support for a combination of water and ethanol or water and alcohol but not organic solvents or any solvents which is an enlargement of scope and unsupported by the original disclosure. The support for this combination solvent mixture is supported by their examples. Applicants do not have support for *any* solvent except those in their examples and in their original disclosure (which is water, water/ethanol, or water/alcohol as solvent). Applicants do not provide a statement to the effect that any solvent may be used for their invention in their original disclosure. One of ordinary skill in the art is left with the claims and examples from the applicants' original disclosure as guidance to determine what solvents can be used in the instant invention. The same holds true for surfactants, catalysts and other critical ingredients used in the instantly claimed process.

Response to Applicants' arguments regarding omission of the acid catalyst and the specific surfactants within the teaching of their original disclosure:

The applicants would appear to use a Jepson style claim format to omit the use of the specific surfactant and acid catalyst which is critical to their invention. It would appear that applicants are of the position that they are not bound by their original specification which requires the use of specific surfactants and an acid catalyst to achieve the objectives of their invention and that they can overcome this simply by using Jepson format which allegedly allows for admission of what is known in the art.

It is the examiner's position that the use of a Jepson claim in attempt to overcome limitations that applicants themselves require as critical (the ammonium surfactant and acid catalyst) is improper. It contradicts what applicants state is "relied upon" for the success of their invention. If it is relied upon, it is also critical to the invention. Omissions of critical components of applicants' method (ie specific

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surfactants and acid catalyst) are also new matter as already stated above and in the final rejection office action. The following excerpts were taken from the original disclosure of the Bruinsma et al. patent (US 5,922,299):

- 1) Under SUMMARY OF THE INVENTION, it states "This invention pertains to the development of a **surfactant**-templated, nanometer scale porosity.... (col.3, lines 37-40). Thus, a surfactant is seemingly a critical part of applicants' invention.
- 2) Immediately the first sentence after DESCRIPTION OF THE PREFERRED EMBODIMENT(S), it states "The method of the present invention **relies upon** a silica precursor mixed with a **surfactant** in an aqueous solution for templating the silica precursor together with a **catalyst (acid)** for hydrolysis of the silica precursor (with emphasis, see column 6, lines 55-60). Certainly, if the method of the applicants' invention "relies" upon a surfactant and an acid catalyst, that would certainly make it a critical component of the instantly claimed process. If applicants simply remove a component (or components) that are "relied upon" and critical to the invention, then they are now claiming an invention not supported by the original disclosure.
- 3) Applicants are referred to all of their examples which all use an acid catalyst (HCl) and a TEOS surfactant solution (see example 1 as well as all other examples). The examiner did not find any examples that omitted the use of either a surfactant or an acid catalyst.
- 4) Applicants are referred to independent claims 1 and 25 from their original patent. Both method claims 1 and 25 require the presence of an acid (catalyst) and a surfactant having an ammonium cation.

The applicants also argue that while their “preferred” catalysts is indeed acidic, base catalysts were well known at the time of the filing of the applicants’ invention. The applicants referred the examiner to the “Background” section of the invention which discusses the use of a base catalyst. The applicants also refer to a cited prior art article by Kresge et al.

The examiner disagrees. First, the acid catalyst of the Bruisma patent is not the preferred catalyst but the only catalyst of the originally disclosed invention. It is the applicants’ responsibility and duty to clearly and fully set forth every and all aspects of their invention at the time of filing and in a manner which would not limit them for what they claim. The applicants did not indicate that in their original disclosure “any” catalyst (including base catalysts) can be used for their invention. If they did, it would have been part of the originally disclosed summary of the invention, in the description of the preferred embodiments, the original claims, etc. In other words, applicants disclosure is limited to what they say it is and in this case it is only teaches the use of an acid catalyst.

More so, it is improper to argue some other prior art article or patent that was within the “background of the invention” and then state that other catalysts such as base catalysts are still part of the original disclosure. The examiner is unaware of any situation where the applicants can rely on the background of their invention including prior art patents and articles (unless of course if incorporated by reference which in this case it is not) to convey the disclosure or what they state is their invention. This is simply not proper and erroneous to state so. Further, where is the statement from

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applicants' original disclosure that they have support for base catalysts? Applicants are invited to point to original support for this species of catalyst. Again, there is only support for "acid" catalysts.

The applicants also cited case law (ie *McAllister e al. and Calingaert et al.*) which state that a precise definition of materials is not needed when the essence of the invention "does not reside in the use of those materials in the claimed process". In rebuttal, the applicants are referred back to points 1) through 4) which clearly demonstrate that the use of an acid catalyst and a surfactant such as an ammonium surfactant is critical to the instant invention.

Again, the method of the **present invention relies upon** a silica precursor mixed with a **surfactant** in an aqueous solution for templating the silica precursor together with a **catalyst (acid)** for hydrolysis of the silica precursor (with emphasis, see column 6, lines 55-60). Certainly, if the essence of the applicants' claimed method "relies" upon the use both a specific surfactant and acid catalysts, it therefore "resides" in the use of the material for the claimed process. This case law is thus inapplicable^{to} the applicants' own specification^{which} sets the guideline or requirement that both an acid catalyst and ammonium surfactant are critical components of the instant invention and must be present in the process.

The applicants next set forth the *Johnson Worldwide Associates v Zebco Corp* citation^{which} would not appear to be relevant case law with respect to the present situation in this reissue application. Applicants state that this case indicated that "the broadened reissue claims merely omit an un-necessary limitation of the invention." Yet, this is not

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applicable because this case law states that the limitation omitted was "un-necessary" aspect of the invention. This is the exact opposite of the applicants' situation with respect to the Bruinsma patent. The presence of both an ammonium cationic surfactant and an acid catalyst are "necessary limitations" of the instant invention and critical to its success. Again, the Bruinsma patent (and thus the reissue disclosure) even state it "relies upon a surfactant together with a catalyst" to achieve the objectives of their invention and all the examples in this patent use together a surfactant and an acid catalyst (HCl). These limitations are also present in all original independent claims. It is clearly evident that both the presence of an acid catalyst are critical elements that can **not** simply be omitted.

Finally, applicants are respectfully requested to amend their claims to include both the specific surfactants and the acid catalyst as is required and is clearly stated so in their original disclosure to result in an allowance of rejected claims 116-121. If applicants hold to their position, they should consider a timely submission of a appeal brief directed only to these claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is (703)-308-1196. The examiner can normally be reached on 4-10 Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell can be reached on (703) 308-3823. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

December 13, 2001

A handwritten signature in black ink, appearing to read 'Paul Marcantoni', with a stylized flourish at the end.

**PAUL MARCANTONI
PRIMARY EXAMINER
GROUP 1700**